

**Appendix Table 5-47****S&E articles in mathematics, by coauthorship attribute and selected region/country/economy: 2000–13**

| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| World | | | | | | | | | | | | | | |
| Total articles | 24,807 | 24,162 | 25,616 | 26,427 | 28,552 | 31,236 | 34,196 | 36,613 | 40,142 | 43,905 | 44,053 | 47,742 | 51,176 | 54,798 |
| with multiple institutions | 10,007 | 9,460 | 9,303 | 12,194 | 13,933 | 15,158 | 16,617 | 18,200 | 19,983 | 21,556 | 21,559 | 23,914 | 26,240 | 28,650 |
| with domestic institutions only | 19,511 | 19,119 | 20,686 | 19,892 | 21,766 | 23,749 | 26,170 | 27,869 | 30,499 | 33,320 | 33,474 | 35,978 | 38,370 | 40,919 |
| with international institutions | 5,296 | 5,043 | 4,930 | 6,535 | 6,786 | 7,487 | 8,026 | 8,744 | 9,643 | 10,585 | 10,579 | 11,764 | 12,806 | 13,879 |
| Canada | | | | | | | | | | | | | | |
| Total articles | 1,060 | 1,018 | 1,038 | 1,224 | 1,308 | 1,486 | 1,598 | 1,590 | 1,786 | 1,944 | 1,765 | 1,801 | 1,868 | 1,963 |
| with multiple institutions | 650 | 618 | 576 | 832 | 919 | 1,055 | 1,083 | 1,143 | 1,261 | 1,331 | 1,185 | 1,269 | 1,300 | 1,368 |
| with domestic institutions only | 505 | 498 | 559 | 521 | 543 | 620 | 690 | 660 | 715 | 795 | 754 | 724 | 762 | 763 |
| with international institutions | 555 | 520 | 479 | 703 | 765 | 866 | 908 | 930 | 1,071 | 1,149 | 1,011 | 1,077 | 1,106 | 1,200 |
| Mexico | | | | | | | | | | | | | | |
| Total articles | 155 | 183 | 202 | 194 | 244 | 301 | 266 | 324 | 318 | 390 | 338 | 357 | 455 | 473 |
| with multiple institutions | 89 | 116 | 119 | 119 | 178 | 204 | 183 | 210 | 224 | 236 | 234 | 239 | 315 | 338 |
| with domestic institutions only | 84 | 86 | 105 | 97 | 101 | 147 | 126 | 159 | 151 | 206 | 170 | 165 | 225 | 241 |
| with international institutions | 71 | 97 | 97 | 97 | 143 | 154 | 140 | 165 | 167 | 184 | 168 | 192 | 230 | 232 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|--------|
| United States | | | | | | | | | | | | | | |
| Total articles | 6,958 | 6,709 | 7,092 | 7,430 | 7,625 | 8,565 | 8,772 | 9,249 | 9,701 | 10,248 | 9,853 | 10,389 | 10,937 | 10,816 |
| with multiple institutions | 3,765 | 3,584 | 3,332 | 4,422 | 4,775 | 5,255 | 5,439 | 5,847 | 6,099 | 6,247 | 5,939 | 6,434 | 6,878 | 7,016 |
| with domestic institutions only | 4,790 | 4,541 | 5,042 | 4,740 | 4,919 | 5,504 | 5,656 | 5,859 | 6,134 | 6,418 | 6,194 | 6,312 | 6,546 | 6,216 |
| with international institutions | 2,168 | 2,168 | 2,050 | 2,690 | 2,706 | 3,061 | 3,116 | 3,390 | 3,567 | 3,830 | 3,659 | 4,077 | 4,391 | 4,600 |
| Argentina | | | | | | | | | | | | | | |
| Total articles | 138 | 114 | 127 | 121 | 158 | 141 | 162 | 187 | 219 | 237 | 243 | 267 | 263 | 218 |
| with multiple institutions | 78 | 53 | 67 | 71 | 100 | 89 | 103 | 132 | 140 | 160 | 163 | 172 | 193 | 144 |
| with domestic institutions only | 77 | 73 | 83 | 64 | 88 | 73 | 93 | 85 | 112 | 118 | 136 | 153 | 133 | 121 |
| with international institutions | 61 | 41 | 44 | 57 | 70 | 68 | 69 | 102 | 107 | 119 | 107 | 114 | 130 | 97 |
| Brazil | | | | | | | | | | | | | | |
| Total articles | 406 | 379 | 437 | 470 | 518 | 535 | 589 | 629 | 738 | 816 | 825 | 948 | 934 | 1,077 |
| with multiple institutions | 275 | 240 | 262 | 325 | 356 | 371 | 397 | 451 | 503 | 573 | 604 | 675 | 690 | 788 |
| with domestic institutions only | 221 | 220 | 264 | 246 | 287 | 296 | 331 | 332 | 424 | 460 | 447 | 542 | 500 | 603 |
| with international institutions | 185 | 159 | 173 | 224 | 231 | 239 | 258 | 297 | 314 | 356 | 378 | 406 | 434 | 474 |
| Chile | | | | | | | | | | | | | | |
| Total articles | 98 | 95 | 120 | 134 | 152 | 140 | 185 | 206 | 221 | 265 | 249 | 278 | 275 | 283 |
| with multiple institutions | 72 | 71 | 88 | 99 | 119 | 113 | 145 | 166 | 178 | 209 | 204 | 219 | 214 | 223 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total articles | 136 | 139 | 150 | 174 | 177 | 189 | 185 | 163 | 171 | 180 | 192 | 200 | 206 | 213 |
| with multiple institutions | 75 | 71 | 73 | 93 | 118 | 114 | 123 | 114 | 120 | 127 | 135 | 133 | 144 | 152 |
| with domestic institutions only | 69 | 81 | 91 | 91 | 83 | 89 | 79 | 65 | 65 | 65 | 70 | 82 | 76 | 70 |
| with international institutions | 67 | 58 | 59 | 83 | 94 | 100 | 106 | 98 | 106 | 115 | 122 | 118 | 130 | 143 |
| Finland | | | | | | | | | | | | | | |
| Total articles | 154 | 128 | 145 | 176 | 226 | 166 | 202 | 237 | 232 | 235 | 279 | 298 | 281 | 319 |
| with multiple institutions | 90 | 73 | 66 | 115 | 135 | 104 | 133 | 152 | 137 | 149 | 172 | 195 | 181 | 216 |
| with domestic institutions only | 82 | 71 | 90 | 79 | 133 | 81 | 105 | 122 | 121 | 105 | 132 | 130 | 117 | 129 |
| with international institutions | 72 | 57 | 55 | 97 | 93 | 85 | 97 | 115 | 111 | 130 | 147 | 168 | 164 | 190 |
| France | | | | | | | | | | | | | | |
| Total articles | 2,602 | 2,332 | 2,461 | 2,555 | 2,700 | 2,835 | 2,963 | 3,035 | 3,267 | 3,547 | 3,588 | 3,637 | 3,750 | 3,891 |
| with multiple institutions | 1,335 | 1,196 | 1,206 | 1,478 | 1,651 | 1,735 | 1,767 | 1,910 | 2,112 | 2,356 | 2,389 | 2,526 | 2,622 | 2,745 |
| with domestic institutions only | 1,691 | 1,454 | 1,633 | 1,476 | 1,569 | 1,632 | 1,747 | 1,703 | 1,725 | 1,796 | 1,879 | 1,765 | 1,827 | 1,826 |
| with international institutions | 911 | 878 | 828 | 1,079 | 1,131 | 1,203 | 1,216 | 1,332 | 1,542 | 1,751 | 1,709 | 1,872 | 1,923 | 2,065 |
| Germany | | | | | | | | | | | | | | |
| Total articles | 2,448 | 1,991 | 1,986 | 2,170 | 2,272 | 2,430 | 2,527 | 2,647 | 2,834 | 2,902 | 2,833 | 3,187 | 3,216 | 3,504 |
| with multiple institutions | 1,146 | 1,022 | 938 | 1,221 | 1,344 | 1,381 | 1,523 | 1,617 | 1,718 | 1,748 | 1,724 | 2,024 | 1,992 | 2,210 |
| with domestic institutions only | 1,530 | 1,144 | 1,178 | 1,132 | 1,209 | 1,323 | 1,295 | 1,344 | 1,413 | 1,442 | 1,402 | 1,545 | 1,620 | 1,675 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| with international institutions | 918 | 847 | 808 | 1,038 | 1,063 | 1,107 | 1,232 | 1,303 | 1,421 | 1,460 | 1,431 | 1,642 | 1,596 | 1,829 |
| Greece | | | | | | | | | | | | | | |
| Total articles | 230 | 209 | 240 | 273 | 326 | 335 | 385 | 363 | 406 | 407 | 382 | 382 | 436 | 412 |
| with multiple institutions | 107 | 91 | 91 | 150 | 173 | 185 | 216 | 227 | 230 | 232 | 234 | 230 | 290 | 268 |
| with domestic institutions only | 149 | 141 | 175 | 167 | 204 | 226 | 232 | 203 | 254 | 237 | 209 | 201 | 213 | 219 |
| with international institutions | 81 | 68 | 65 | 106 | 122 | 109 | 153 | 160 | 152 | 170 | 173 | 181 | 223 | 193 |
| Hungary | | | | | | | | | | | | | | |
| Total articles | 340 | 310 | 296 | 318 | 309 | 339 | 367 | 338 | 392 | 411 | 376 | 416 | 445 | 468 |
| with multiple institutions | 171 | 143 | 132 | 182 | 182 | 201 | 228 | 216 | 233 | 247 | 223 | 225 | 285 | 295 |
| with domestic institutions only | 193 | 177 | 182 | 162 | 151 | 160 | 176 | 156 | 207 | 219 | 191 | 235 | 208 | 223 |
| with international institutions | 147 | 133 | 114 | 156 | 158 | 179 | 191 | 182 | 185 | 192 | 185 | 181 | 237 | 245 |
| Ireland | | | | | | | | | | | | | | |
| Total articles | 110 | 98 | 87 | 102 | 112 | 135 | 166 | 167 | 186 | 206 | 198 | 208 | 185 | 190 |
| with multiple institutions | 70 | 60 | 57 | 66 | 74 | 107 | 124 | 133 | 149 | 137 | 143 | 141 | 112 | 141 |
| with domestic institutions only | 48 | 43 | 36 | 40 | 45 | 38 | 54 | 45 | 53 | 80 | 70 | 77 | 82 | 62 |
| with international institutions | 62 | 55 | 51 | 62 | 67 | 97 | 112 | 122 | 133 | 126 | 128 | 131 | 103 | 128 |
| Italy | | | | | | | | | | | | | | |
| Total articles | 1,297 | 1,441 | 1,473 | 1,582 | 1,670 | 1,810 | 1,954 | 2,066 | 2,154 | 2,433 | 2,297 | 2,393 | 2,537 | 2,679 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| with multiple institutions | 721 | 736 | 729 | 920 | 999 | 1,088 | 1,202 | 1,257 | 1,342 | 1,475 | 1,448 | 1,454 | 1,582 | 1,722 |
| with domestic institutions only | 784 | 985 | 1,006 | 961 | 1,040 | 1,122 | 1,169 | 1,247 | 1,260 | 1,478 | 1,347 | 1,386 | 1,446 | 1,473 |
| with international institutions | 513 | 456 | 467 | 621 | 630 | 688 | 785 | 819 | 894 | 955 | 950 | 1,007 | 1,091 | 1,206 |
| Netherlands | | | | | | | | | | | | | | |
| Total articles | 421 | 354 | 353 | 470 | 396 | 492 | 498 | 454 | 483 | 516 | 496 | 497 | 532 | 561 |
| with multiple institutions | 262 | 205 | 177 | 318 | 257 | 323 | 357 | 318 | 340 | 348 | 361 | 344 | 380 | 421 |
| with domestic institutions only | 221 | 178 | 207 | 205 | 174 | 242 | 214 | 199 | 215 | 224 | 188 | 198 | 204 | 207 |
| with international institutions | 200 | 176 | 146 | 265 | 222 | 250 | 284 | 255 | 268 | 292 | 308 | 299 | 328 | 354 |
| Poland | | | | | | | | | | | | | | |
| Total articles | 547 | 575 | 540 | 627 | 607 | 700 | 718 | 839 | 882 | 1,022 | 938 | 1,108 | 1,275 | 1,256 |
| with multiple institutions | 245 | 268 | 219 | 308 | 345 | 348 | 361 | 389 | 446 | 472 | 478 | 534 | 583 | 621 |
| with domestic institutions only | 356 | 358 | 360 | 387 | 340 | 450 | 458 | 557 | 539 | 657 | 577 | 695 | 823 | 780 |
| with international institutions | 191 | 217 | 180 | 240 | 267 | 250 | 260 | 282 | 343 | 365 | 361 | 413 | 452 | 476 |
| Portugal | | | | | | | | | | | | | | |
| Total articles | 131 | 170 | 167 | 195 | 218 | 260 | 297 | 279 | 341 | 457 | 452 | 519 | 523 | 554 |
| with multiple institutions | 72 | 81 | 84 | 112 | 152 | 167 | 202 | 193 | 232 | 306 | 307 | 367 | 382 | 397 |
| with domestic institutions only | 72 | 106 | 97 | 112 | 118 | 152 | 167 | 147 | 168 | 237 | 240 | 247 | 250 | 256 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| with international institutions | 59 | 64 | 70 | 83 | 100 | 108 | 130 | 132 | 173 | 220 | 212 | 272 | 273 | 298 |
| Romania | | | | | | | | | | | | | | |
| Total articles | 181 | 183 | 227 | 252 | 236 | 302 | 324 | 362 | 558 | 658 | 640 | 760 | 758 | 844 |
| with multiple institutions | 105 | 103 | 109 | 153 | 123 | 162 | 179 | 211 | 310 | 351 | 357 | 391 | 425 | 518 |
| with domestic institutions only | 86 | 94 | 128 | 110 | 134 | 162 | 172 | 185 | 334 | 404 | 385 | 479 | 444 | 442 |
| with international institutions | 95 | 89 | 99 | 142 | 102 | 140 | 152 | 177 | 224 | 254 | 255 | 281 | 314 | 402 |
| Spain | | | | | | | | | | | | | | |
| Total articles | 1,072 | 1,031 | 1,031 | 1,193 | 1,267 | 1,296 | 1,539 | 1,662 | 1,670 | 1,813 | 1,786 | 1,797 | 1,967 | 2,061 |
| with multiple institutions | 567 | 539 | 523 | 755 | 766 | 824 | 991 | 1,110 | 1,092 | 1,227 | 1,215 | 1,277 | 1,400 | 1,501 |
| with domestic institutions only | 704 | 681 | 692 | 688 | 781 | 764 | 898 | 914 | 934 | 943 | 906 | 890 | 950 | 977 |
| with international institutions | 368 | 350 | 339 | 505 | 486 | 532 | 641 | 748 | 736 | 870 | 880 | 907 | 1,017 | 1,084 |
| Sweden | | | | | | | | | | | | | | |
| Total articles | 298 | 259 | 294 | 302 | 355 | 406 | 406 | 387 | 392 | 449 | 444 | 415 | 432 | 459 |
| with multiple institutions | 163 | 120 | 141 | 186 | 209 | 230 | 222 | 223 | 244 | 268 | 271 | 277 | 273 | 307 |
| with domestic institutions only | 161 | 156 | 180 | 145 | 197 | 224 | 236 | 203 | 197 | 221 | 206 | 177 | 187 | 187 |
| with international institutions | 137 | 103 | 114 | 157 | 158 | 182 | 170 | 184 | 195 | 228 | 238 | 238 | 245 | 272 |
| United Kingdom | | | | | | | | | | | | | | |
| Total articles | 1,519 | 1,419 | 1,423 | 1,566 | 1,565 | 1,741 | 1,991 | 2,105 | 2,183 | 2,317 | 2,290 | 2,378 | 2,424 | 2,572 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| with multiple institutions | 852 | 724 | 754 | 963 | 984 | 1,154 | 1,276 | 1,394 | 1,387 | 1,487 | 1,441 | 1,541 | 1,588 | 1,734 |
| with domestic institutions only | 836 | 851 | 821 | 800 | 755 | 818 | 969 | 978 | 1,043 | 1,058 | 1,062 | 1,050 | 1,031 | 1,057 |
| with international institutions | 683 | 568 | 602 | 766 | 810 | 923 | 1,022 | 1,127 | 1,140 | 1,259 | 1,228 | 1,328 | 1,393 | 1,515 |
| Norway | | | | | | | | | | | | | | |
| Total articles | 121 | 137 | 114 | 130 | 157 | 153 | 203 | 206 | 244 | 275 | 255 | 267 | 316 | 323 |
| with multiple institutions | 77 | 79 | 69 | 87 | 112 | 108 | 113 | 143 | 167 | 189 | 167 | 178 | 234 | 232 |
| with domestic institutions only | 65 | 73 | 65 | 63 | 68 | 69 | 124 | 96 | 112 | 118 | 120 | 123 | 126 | 122 |
| with international institutions | 56 | 64 | 49 | 67 | 89 | 84 | 79 | 110 | 132 | 157 | 135 | 144 | 190 | 201 |
| Russia | | | | | | | | | | | | | | |
| Total articles | 1,526 | 1,434 | 1,574 | 1,479 | 1,687 | 1,852 | 2,042 | 2,247 | 2,370 | 2,371 | 2,572 | 2,634 | 2,527 | 2,610 |
| with multiple institutions | 475 | 434 | 425 | 492 | 583 | 630 | 653 | 698 | 699 | 774 | 820 | 840 | 943 | 993 |
| with domestic institutions only | 1,148 | 1,097 | 1,231 | 1,088 | 1,249 | 1,371 | 1,556 | 1,778 | 1,895 | 1,871 | 2,071 | 2,109 | 1,993 | 2,063 |
| with international institutions | 378 | 337 | 343 | 391 | 438 | 481 | 486 | 469 | 475 | 500 | 501 | 525 | 534 | 547 |
| Switzerland | | | | | | | | | | | | | | |
| Total articles | 282 | 232 | 285 | 295 | 323 | 370 | 402 | 408 | 453 | 460 | 445 | 512 | 587 | 676 |
| with multiple institutions | 157 | 126 | 144 | 193 | 206 | 234 | 256 | 273 | 319 | 297 | 305 | 356 | 432 | 481 |
| with domestic institutions only | 139 | 118 | 151 | 114 | 139 | 160 | 174 | 159 | 164 | 176 | 159 | 182 | 175 | 212 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| with international institutions | 143 | 114 | 134 | 181 | 184 | 210 | 228 | 249 | 289 | 284 | 286 | 330 | 412 | 464 |
| Iran | | | | | | | | | | | | | | |
| Total articles | 84 | 95 | 105 | 146 | 239 | 381 | 481 | 598 | 594 | 793 | 880 | 1,328 | 1,511 | 1,510 |
| with multiple institutions | 39 | 55 | 48 | 78 | 144 | 234 | 258 | 308 | 330 | 435 | 449 | 738 | 854 | 943 |
| with domestic institutions only | 66 | 73 | 86 | 107 | 189 | 297 | 398 | 488 | 478 | 612 | 655 | 1,006 | 1,102 | 1,026 |
| with international institutions | 18 | 22 | 19 | 39 | 50 | 84 | 83 | 110 | 116 | 181 | 225 | 322 | 409 | 484 |
| Israel | | | | | | | | | | | | | | |
| Total articles | 487 | 539 | 515 | 539 | 541 | 546 | 616 | 602 | 678 | 665 | 640 | 673 | 679 | 676 |
| with multiple institutions | 302 | 328 | 288 | 351 | 349 | 357 | 391 | 393 | 424 | 441 | 428 | 446 | 458 | 427 |
| with domestic institutions only | 226 | 260 | 265 | 231 | 249 | 252 | 290 | 274 | 348 | 278 | 266 | 281 | 285 | 320 |
| with international institutions | 261 | 279 | 250 | 308 | 292 | 294 | 326 | 328 | 330 | 387 | 374 | 392 | 394 | 356 |
| Saudi Arabia | | | | | | | | | | | | | | |
| Total articles | 68 | 79 | 79 | 125 | 125 | 149 | 145 | 156 | 216 | 236 | 360 | 499 | 756 | 968 |
| with multiple institutions | 40 | 41 | 35 | 80 | 91 | 89 | 84 | 84 | 135 | 140 | 245 | 368 | 572 | 780 |
| with domestic institutions only | 45 | 52 | 46 | 59 | 52 | 78 | 81 | 88 | 103 | 108 | 130 | 146 | 210 | 210 |
| with international institutions | 23 | 27 | 33 | 66 | 73 | 71 | 64 | 68 | 113 | 128 | 230 | 353 | 546 | 758 |
| Turkey | | | | | | | | | | | | | | |
| Total articles | 180 | 175 | 214 | 270 | 409 | 420 | 535 | 539 | 614 | 769 | 842 | 1,062 | 1,071 | 1,464 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| with multiple institutions | 70 | 80 | 75 | 105 | 159 | 171 | 234 | 259 | 301 | 376 | 392 | 510 | 601 | 773 |
| with domestic institutions only | 133 | 113 | 155 | 207 | 312 | 321 | 404 | 388 | 444 | 566 | 626 | 787 | 702 | 991 |
| with international institutions | 47 | 62 | 59 | 63 | 97 | 99 | 131 | 151 | 170 | 203 | 216 | 275 | 369 | 473 |
| Egypt | | | | | | | | | | | | | | |
| Total articles | 72 | 83 | 124 | 206 | 227 | 185 | 163 | 157 | 231 | 248 | 229 | 272 | 362 | 386 |
| with multiple institutions | 33 | 27 | 45 | 94 | 114 | 89 | 87 | 83 | 121 | 111 | 136 | 167 | 243 | 298 |
| with domestic institutions only | 48 | 67 | 95 | 133 | 158 | 126 | 112 | 106 | 137 | 166 | 124 | 151 | 153 | 132 |
| with international institutions | 24 | 16 | 29 | 73 | 69 | 59 | 51 | 51 | 94 | 82 | 105 | 121 | 209 | 254 |
| South Africa | | | | | | | | | | | | | | |
| Total articles | 109 | 111 | 127 | 140 | 160 | 164 | 242 | 213 | 231 | 277 | 243 | 292 | 348 | 368 |
| with multiple institutions | 65 | 63 | 71 | 81 | 98 | 87 | 135 | 117 | 130 | 170 | 139 | 183 | 203 | 215 |
| with domestic institutions only | 51 | 60 | 68 | 73 | 81 | 95 | 140 | 129 | 124 | 141 | 116 | 132 | 171 | 186 |
| with international institutions | 58 | 51 | 59 | 67 | 79 | 69 | 102 | 84 | 107 | 136 | 127 | 160 | 177 | 182 |
| China | | | | | | | | | | | | | | |
| Total articles | 1,531 | 1,753 | 1,844 | 2,305 | 2,899 | 3,000 | 3,965 | 4,720 | 5,569 | 6,752 | 6,852 | 7,533 | 8,954 | 11,024 |
| with multiple institutions | 803 | 909 | 938 | 1,405 | 1,793 | 1,877 | 2,394 | 2,859 | 3,409 | 4,009 | 4,010 | 4,549 | 5,397 | 6,641 |
| with domestic institutions only | 1,058 | 1,285 | 1,361 | 1,570 | 2,071 | 2,144 | 2,918 | 3,538 | 4,180 | 5,119 | 5,234 | 5,733 | 6,927 | 8,664 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| with international institutions | 473 | 468 | 483 | 735 | 828 | 856 | 1,047 | 1,182 | 1,389 | 1,633 | 1,618 | 1,800 | 2,027 | 2,360 |
| India | | | | | | | | | | | | | | |
| Total articles | 478 | 472 | 536 | 637 | 576 | 651 | 735 | 867 | 1,141 | 1,421 | 1,512 | 1,860 | 2,051 | 2,299 |
| with multiple institutions | 222 | 232 | 253 | 334 | 312 | 381 | 439 | 466 | 655 | 834 | 859 | 1,048 | 1,164 | 1,348 |
| with domestic institutions only | 342 | 340 | 393 | 469 | 418 | 430 | 484 | 637 | 816 | 1,050 | 1,133 | 1,361 | 1,503 | 1,662 |
| with international institutions | 136 | 132 | 143 | 168 | 158 | 221 | 251 | 230 | 325 | 371 | 379 | 499 | 548 | 637 |
| Japan | | | | | | | | | | | | | | |
| Total articles | 1,280 | 1,308 | 1,335 | 1,448 | 1,471 | 1,419 | 1,529 | 1,612 | 1,766 | 1,892 | 1,883 | 1,941 | 2,090 | 2,126 |
| with multiple institutions | 581 | 522 | 556 | 720 | 770 | 681 | 792 | 784 | 916 | 988 | 947 | 1,023 | 1,144 | 1,132 |
| with domestic institutions only | 986 | 1,029 | 1,061 | 1,058 | 1,071 | 1,044 | 1,080 | 1,190 | 1,307 | 1,362 | 1,354 | 1,352 | 1,409 | 1,487 |
| with international institutions | 294 | 279 | 274 | 390 | 400 | 375 | 449 | 422 | 459 | 530 | 529 | 589 | 681 | 639 |
| Malaysia | | | | | | | | | | | | | | |
| Total articles | 17 | 18 | 20 | 25 | 20 | 35 | 57 | 51 | 100 | 187 | 220 | 290 | 381 | 452 |
| with multiple institutions | 8 | 8 | 10 | 14 | 12 | 18 | 31 | 32 | 54 | 111 | 137 | 171 | 236 | 302 |
| with domestic institutions only | 10 | 12 | 11 | 14 | 13 | 23 | 44 | 32 | 68 | 116 | 139 | 179 | 225 | 244 |
| with international institutions | 7 | 6 | 9 | 11 | 7 | 12 | 13 | 19 | 32 | 71 | 81 | 111 | 156 | 208 |
| Singapore | | | | | | | | | | | | | | |
| Total articles | 175 | 185 | 217 | 196 | 188 | 199 | 207 | 211 | 233 | 215 | 235 | 247 | 265 | 269 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| with multiple institutions | 119 | 104 | 135 | 139 | 138 | 136 | 166 | 164 | 185 | 166 | 182 | 183 | 182 | 215 |
| with domestic institutions only | 77 | 88 | 114 | 82 | 77 | 83 | 68 | 77 | 86 | 68 | 70 | 79 | 94 | 65 |
| with international institutions | 98 | 97 | 103 | 114 | 111 | 116 | 139 | 134 | 147 | 147 | 165 | 168 | 171 | 204 |
| South Korea | | | | | | | | | | | | | | |
| Total articles | 424 | 431 | 520 | 599 | 584 | 716 | 777 | 859 | 997 | 1,055 | 1,066 | 1,216 | 1,451 | 1,651 |
| with multiple institutions | 225 | 246 | 269 | 368 | 379 | 451 | 484 | 536 | 641 | 675 | 674 | 803 | 977 | 1,066 |
| with domestic institutions only | 297 | 264 | 355 | 373 | 356 | 428 | 483 | 539 | 618 | 645 | 646 | 698 | 821 | 971 |
| with international institutions | 127 | 167 | 165 | 226 | 228 | 288 | 294 | 320 | 379 | 410 | 420 | 518 | 630 | 680 |
| Taiwan | | | | | | | | | | | | | | |
| Total articles | 346 | 332 | 356 | 373 | 430 | 488 | 591 | 608 | 732 | 801 | 773 | 810 | 803 | 861 |
| with multiple institutions | 187 | 178 | 177 | 227 | 283 | 305 | 372 | 395 | 492 | 543 | 486 | 511 | 519 | 565 |
| with domestic institutions only | 236 | 221 | 253 | 238 | 273 | 327 | 416 | 398 | 443 | 475 | 470 | 489 | 470 | 537 |
| with international institutions | 110 | 111 | 103 | 135 | 157 | 161 | 175 | 210 | 289 | 326 | 303 | 321 | 333 | 324 |
| Australia | | | | | | | | | | | | | | |
| Total articles | 641 | 557 | 552 | 615 | 765 | 763 | 750 | 779 | 942 | 948 | 915 | 991 | 1,054 | 1,034 |
| with multiple institutions | 363 | 325 | 325 | 397 | 488 | 521 | 478 | 519 | 643 | 627 | 599 | 699 | 737 | 730 |
| with domestic institutions only | 339 | 284 | 289 | 279 | 377 | 338 | 360 | 337 | 409 | 428 | 399 | 394 | 427 | 378 |



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| Region/country/economy and coauthorship attribute | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| with international institutions | 302 | 273 | 263 | 336 | 388 | 425 | 390 | 442 | 533 | 520 | 516 | 597 | 627 | 656 |
| New Zealand | | | | | | | | | | | | | | |
| Total articles | 133 | 117 | 148 | 133 | 144 | 144 | 165 | 170 | 182 | 170 | 183 | 210 | 217 | 223 |
| with multiple institutions | 71 | 61 | 82 | 81 | 104 | 100 | 125 | 119 | 140 | 110 | 123 | 167 | 159 | 163 |
| with domestic institutions only | 70 | 62 | 76 | 61 | 57 | 57 | 47 | 59 | 47 | 70 | 66 | 55 | 69 | 67 |
| with international institutions | 63 | 55 | 72 | 72 | 87 | 87 | 118 | 111 | 135 | 100 | 117 | 155 | 148 | 156 |

NOTES: Article counts refer to publications from a selection of journals, books, and conference proceedings in S&E from Scopus. Articles are classified by their year of publication and are assigned to a region/country/economy on the basis of the institutional address(es) listed in the article. Articles are credited on a whole-count basis (i.e., each collaborating country/economy is credited with one count). Countries/economies with less than 1% of internationally coauthored articles in 2013 are omitted. Articles with multiple institutions are counts of articles with two or more institutional addresses. Articles with domestic institutions only are counts of articles with one or more institutional addresses all within a single country/economy. Articles with international institutions are counts of articles with institutional addresses from more than one country/economy.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics; SRI International; Science-Metrix; Elsevier, Scopus abstract and citation database (www.scopus.com).

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